

REMARKS

In response to the above-identified Office Action, Applicants amend the application and seek reconsideration thereof. In this response, one claim has been cancelled, one claim has been added and no claims have been amended. Accordingly, Claims 1-9 and 11-13 are pending.

Claims Rejected Under 35 U.S.C. §102

The Examiner has rejected Claims 1-9 and 12 under 35 U.S.C. §102 as anticipated by Knox, U.S. Patent No. 6,331,860 B1 ("Knox"). Applicants respectfully traverse this rejection.

It is axiomatic that to anticipate a claim, every element of the claim must be disclosed within a single reference. Applicants respectfully submit that there is no teaching or suggestion in Knox of obtaining a data set of first point cloud and data set of a second point cloud. Point cloud, as is well understood in the industry, refers to a set of points that define a structured surface or a region of an object. By meshing the point cloud, the surface of the object is obtained. However, point cloud does not by its nature include the texture map. The texture map includes indicia and possibly color information about the surface. Stated slightly differently, the point cloud defines one surface while the texture map defines what is on the surface. Knox fails to teach the use of point clouds in any manner. Knox is solely related to two-dimensional texture map alignment. This is made abundantly clear by the fact that the copy machines use to digitize the "documents" (Knox is specifically directed to documents. (See title and *passim*) are incapable of capturing anything other than a texture map. Thus, there is no possibility that Knox addresses the point clouds in the first instance.

Moreover, Applicants have consistently used a differentiation between texture and geometry to distinguish between surface image and structure respectfully. Thus, since Knox fails to deal with anything other than the surface image, it fails to teach or suggest identifying a portion of geometry defined by each respective data set...computing a transformation of that portion of geometry in each data set...or applying the transformation to the first point cloud to register relative to the second point cloud. For all the foregoing reasons, Claim 1 and its dependent claims are all patentable over Knox.

All of the arguments with respect to Claim 1 above apply equally to Claim 12. As an additional matter with respect to Claim 12, even if the Examiner's position were otherwise correct, Knox explicitly requires human intervention to identify the elements in the respective texture maps, which are the same and should form the basis for alignment. Thus, Knox clearly fails to teach or suggest, "program instructions that direct a computer to perform...identifying a portion of geometry defined by each respective data set, which describes a substantially similar geometric shape." For at least this additional reason, the rejection of Claim 12 should be withdrawn.

Claims Rejected for Double Patenting

Applicants have cancelled Claim 10, thus the statutory double patenting rejection is moot. In connection with the non-statutory double patenting rejection of Claims 1-9 and 11-12, Applicants submit herewith a Terminal Disclaimer and respectfully requests that this rejection be withdrawn.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending are now in condition for allowance and such action is earnestly solicited at the earliest possible date. If there are any additional fees due in connection with the filing of this response, please charge those fees to our Deposit Account No. 02-2666. Questions regarding this matter should be directed to the undersigned at (310) 207-3800.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on October 29, 2004.

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10/29/2004
Date